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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,565	07/31/2001	Vishal Bansal	SS3035USNA	4917

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EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT PAPER NUMBER

1771

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/919,565

**Applicant(s)**

BANSAL ET AL.

**Examiner**

Norca L. Torres-Velazquez

**Art Unit**

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,8,9,11-14,17-26 and 28-33 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 17-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8,9,11-14,24-26 and 28-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-3, 5-16 and 24-33 in the reply filed on May 27, 2004 is acknowledged. The traversal is on the ground(s) that the amendment and remarks overcome the outstanding rejection and establish the allowability of the elected subject matter. This is not found persuasive because the Examiner finds that the amendment and remarks filed by Applicants do not overcome the rejections over Shawyer et al.

The requirement is still deemed proper and is therefore made FINAL.

### ***Response to Arguments***

2. Applicant's arguments and amendment filed on May 27, 2004 have been fully considered but they are not persuasive.

a. Applicants argue that Shawyer et al. do not anticipate the limitation of the second component being a single polymer selected from only polyolefin or polyester because the reference teaches that their second component B is invariably composed of a blend of polyolefin and a thermoplastic elastomeric component (Col. 7, lines 6-8)

It is the Examiner's interpretation that the first component A of Shawyer et al. (that has been equated to the second component of the present invention, includes a polyolefin while the second component B includes a blend. The reference does teach that the first component A may also comprise other thermoplastic polymers, and this could be interpreted in two different ways: as these thermoplastic polymers being other options for the suitable polyolefins listed on Col. 7, lines 8-11; or that these may optionally be included as a "blend" as Applicants implied. The Examiner maintains her position that

either interpretation anticipates the present claims since the independent claims of the present invention use the language comprising and further because the reference teaches that the first component A may also comprise other thermoplastic polymers and this is interpreted as being an option if indeed what the reference is teaching is a blend of polymers for this component.

b. Applicants further argue that substituting the elastomer-containing blend of component B of Shawyer et al. with the non-elastic polymer blends of Newkirk et al. would destroy the Shawyer et al. reference, which requires a blend of polyolefin and an elastomeric thermoplastic material as second component B of their multicomponent polymeric strands.

It is the Examiner's position that the Shawyer et al. reference provides the first component and second component structural features of the present invention and that by modifying the type of material in the second component B by using the non-elastomeric polymers taught by Newkirk will not destroy the Shawyer et al. reference since there is enough motivation for this modification in the Newkirk reference that will benefit the product of Shawyer et al. By providing the second component B of Shawyer et al. with nonelastic polymer components the multicomponent polymeric strands produced will have better spinning, bonding and strength characteristics and will increase the abrasion resistance of these. (Newkirk et al. Col. 3, lines 26-29 and 49-54)

Therefore, claims remain rejected as stated below.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-6, 8-9, 11-14, 24-26, 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over SHAWYER et al. (US 5,405,682) in view of NEWKIRK et al. (US 6,417,121 B1).

SHAWYER et al. discloses a nonwoven fabric of SHAWYER et al. made with multicomponent polymeric strands including first and second polymeric components arranged in substantially distinctive zones across the cross-section of the multicomponent strands. The second component of the strands constitutes at least a portion of the peripheral surface of the multicomponent strands continuously along the length of the multicomponent strands and include a blend of a polyolefin and a thermoplastic elastomeric polymer. (Column 3, lines 27-42) The reference discloses that the nonwoven webs may be formed by a variety of processes such as meltblowing processes, spunbonding processes and staple fiber carding processes. (Column 6, lines 35-36) Additionally, as evidence by Sudduth et al. (5,770,531), meltblown fiber inherently have a diameter of smaller than 10 microns (column 3, lines 15-20) and spunbond filaments inherently have a diameter of larger than 7 microns, particularly between 10 and 20 microns. (Column 3, lines 2-5). Thus, the fibers taught by SHAWYER et al. made by a meltblowing process would inherently have the claims diameters.

SHAWYER et al. teaches that the first component A of the multicomponent strands preferably has a melting point higher than the second component. The first component A includes a polyolefin and the second component B includes a blend of a polyolefin and a thermoplastic elastomeric material. Suitable polyolefins for the first component A may comprise polymers such as polyesters. Suitable polyolefins for the second component B include polyethylene and random copolymers of propylene and ethylene. (Column 7, lines 3-22) The reference further teaches the use of poly(ethylene-butylene) for the thermoplastic elastomeric polymer. (Column 3, lines 27-47) The Examiner equates the first component A of SHAWYER et al. to the second polymer component of the present invention and the second component B of SHAWYER et al. to the first polymer component of the present invention.

The reference further teaches that the first component preferably comprises a polyolefin but may also comprise other thermoplastic polymers such as polyesters. (Column 4, lines 9-11) The first polymeric component of the multicomponent strands of the invention are present in an amount of from about 20 to about 80% by weight of the strands and the second polymeric component is present in an amount from about 80 to about 20% by weight of the strands. (Column 4, lines 22-27) The reference further teaches that the bonds between the multicomponent strands may be formed by the application of heat. The addition of the thermoplastic elastomeric polymer enhances the give of the bonds between the multicomponent strands. (Column 3, lines 27-47)

In another embodiment of their invention, the reference teaches a structure with two webs thermally point bonded together to form a cloth-like material. The reference teaches that the second web may be a spunbond material. (Refer to Column 13, lines 21-30, 49-54)

SHAWYER et al. fails to teach that the first and second polymers are non-elastomeric polymers.

NEWKIRK et al. provides multicomponent fibers arranged in structured domains. At least one of the polymer components is formed of a multipolymer blend. (Abstract) The multicomponent fibers of the invention include at least two polymer components arranged in structured domains. At least one of the polymer components is formed of a select blend of specific grades of polyethylene and polypropylene, which give improved fabric performance. The reference teaches that these blends have excellent melt spinning and processing properties, which permit efficiently producing nonwoven fabrics at high productivity levels. (Column 3, lines 17-25) The reference teaches that the multicomponent fibers can be continuous filaments, staple fibers, or meltblown fibers. (Column 3, lines 37-38) The reference teaches that the blending of relatively small proportion of polypropylene with the polyethylene imparts greatly increased abrasion resistance. (Column 3, lines 26-29) The reference also teaches the use of polyethylene terephthalate core in a sheath/core fiber. It also teaches other structured fiber configurations such as side-by-side. (Column 7, lines 8-15) A preferred embodiment of the invention is a sheath/core bicomponent fiber in which the sheath is formed of a polymer blend. (Column 7, lines 50-53) The multicomponent blend component of the multicomponent fibers of the invention is predominantly formed from polymers that normally are considered nonelastic. (Column 7, lines 56-58)

Since both, SHAWYER et al. and NEWKIRK et al., are directed to nonwoven fabrics made from multicomponent fibers, the purpose disclosed by NEWKIRK et al. would have been recognized in the pertinent art of SHAWYER et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the polymer components and provide with nonelastic polymer components the motivation of having better spinning, bonding and strength characteristics to the component and increase the abrasion resistance of the components as disclosed by NEWKIRK et al. (Column 3, lines 26-29 and 49-54)

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Norca L. Torres-Velazquez  
Examiner  
Art Unit 1771

August 17, 2004



ELIZABETH M. COLE  
PRIMARY EXAMINER